

## Term Information

Effective Term Summer 2021  
*Previous Value* Spring 2017

## Course Change Information

### What change is being proposed? (If more than one, what changes are being proposed?)

Addition of a Distance Learning section

### What is the rationale for the proposed change(s)?

It is clear that student learning can be significantly positively impacted by traditional, in person modalities, as well as in distance formats. Our department is large, and we wish to be able to offer multiple sections of our undergraduate curriculum in a variety of modalities to provide the best range of options for our students and faculty moving forward. For students, it can be more than just a matter of convenience - an online class may allow (for example) a working parent to finish their degree in a flexible way or a student with significant health concerns to continue to engage in coursework. Such flexibility also allows our excellent faculty with significant health concerns to continue to positively impact student learning in their area of expertise by teaching remotely. It is best for all members of the university to have the flexibility to offer sections in a variety of settings.

### What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course?)

None

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

## General Information

Course Bulletin Listing/Subject Area Psychology  
Fiscal Unit/Academic Org Psychology - D0766  
College/Academic Group Arts and Sciences  
Level/Career Undergraduate  
Course Number/Catalog 2220  
Course Title Data Analysis in Psychology  
Transcript Abbreviation Data Anly in Psych  
Course Description Discussion of statistical analysis of psychological data - random samples, graphical and numerical techniques of descriptive statistics, correlation, regression, probability, sampling distribution, and hypothesis testing.  
Semester Credit Hours/Units Fixed: 3

## Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week  
Flexibly Scheduled Course Never  
Does any section of this course have a distance education component? Yes  
Is any section of the course offered 100% at a distance  
*Previous Value* Yes, Greater or equal to 50% at a distance  
Grading Basis Letter Grade  
Repeatable No

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Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark

## Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: 1100 or 1100H, and Stat 1450, Math 1130, Math 1148, Math 1149, 1150, 1151, or 152, or equiv, or Math Placement Level M or higher; or permission of instructor.
<i>Previous Value</i>	<i>Prereq: 1100 (100) or 1100H (100H), and Stat 1450 (145), Math 1130, Math 1148 (148), Math 1149, 1150 (150), 1151 (151), or 152, or equiv, or Math Placement Level M or higher; or permission of instructor.</i>
Exclusions	
<i>Previous Value</i>	Not open to students with credit for 220, 220H, 320, or 320H.
Electronically Enforced	Yes
<i>Previous Value</i>	<b>No</b>

## Cross-Listings

Cross-Listings

## Subject/CIP Code

Subject/CIP Code	42.2708
Subsidy Level	Baccalaureate Course
Intended Rank	Freshman, Sophomore

## Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

## Course Details

Course goals or learning objectives/outcomes	<ul style="list-style-type: none"><li>• Be able to create an accurate graph of a set of data from a set of summary descriptive statistics and/or textual description, &amp; accurately interpret such graphs, compute &amp; correctly interpret descriptive statistics</li><li>• Be able to demonstrate an understanding of the process of null-hypothesis significance testing by using hypothesis testing steps to compute &amp; correctly interpret z-tests, one sample t-tests, independent means t-tests, &amp; related samples t-tests</li><li>• Be able to identify, calculate, &amp; interpret appropriate measures of effect size &amp; confidence intervals, compute &amp; correctly interpret bivariate correlation &amp; simple linear regression, &amp; interpret coefficients from multiple regression</li><li>• Be able to correctly interpret computer output from a statistical program for t-test, correlation, &amp; regression analyses, correctly choose which statistical test to use based on data characteristics, research design, &amp; number of variables</li><li>• Be able to read, understand and evaluate the statistics as presented in research articles that used t-tests, correlation, and regression</li></ul>
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**COURSE CHANGE REQUEST**  
2220 - Status: PENDING

Last Updated: Vankeerbergen,Bernadette  
Chantal  
02/04/2021

**Content Topic List**

- Random sampling
- Descriptive statistics
- Graphical representations
- Correlation and regression
- Probability
- Sampling distributions
- Hypothesis testing

**Sought Concurrence**

No

**Attachments**

- PSYCHOLOGY 2220\_online syllabus proposal.docx: proposed syllabus  
*(Syllabus. Owner: Paulsen,Alisa Marie)*
- PSYCH 2220 technical review.docx: ASC technical review  
*(Other Supporting Documentation. Owner: Paulsen,Alisa Marie)*
- AU19.Syllabus.2220.docx.pdf: current syllabus  
*(Syllabus. Owner: Paulsen,Alisa Marie)*

**Comments**

- I unchecked the hybrid box. Thanks. *(by Paulsen,Alisa Marie on 02/03/2021 11:07 AM)*
- This course was never formally reviewed for hybrid delivery (50% or more at a distance). This appears to be something left over from semester conversion, when the dept checked this box off. However, the college did not start reviewing courses for online (or hybrid) delivery until 2014. Please either uncheck the box or submit syllabus and ASCTech review sheet for HY as well. *(by Vankeerbergen,Bernadette Chantal on 02/03/2021 08:59 AM)*

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Paulsen,Alisa Marie	01/22/2021 04:54 PM	Submitted for Approval
Approved	Paulsen,Alisa Marie	01/22/2021 04:59 PM	Unit Approval
Approved	Haddad,Deborah Moore	01/22/2021 05:26 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	02/03/2021 08:59 AM	ASCCAO Approval
Submitted	Paulsen,Alisa Marie	02/03/2021 11:07 AM	Submitted for Approval
Approved	Paulsen,Alisa Marie	02/03/2021 11:08 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	02/04/2021 11:02 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Hilty,Michael Vankeerbergen,Bernadette Chantal	02/04/2021 11:02 AM	ASCCAO Approval



# SYLLABUS

# PSYCHOLOGY 2220

**Data Analysis in Psychology**

Term XXXX – Online – Class #:

## COURSE OVERVIEW

### Instructor

Instructor: Varies, specific section instructor will provide to students

Email address: Varies, specific section instructor will provide to students

Phone number: Varies, specific section instructor will provide to students

Office hours: Varies, specific section instructor will provide to students

### Course description

The goal of this course is to provide an introduction to the statistical analysis of psychological data. Statistical analysis is a vital step in empirical research that will allow you to draw conclusions from the data that you collect or interpret the conclusions of others. Throughout the course we will discuss how and when to use various statistical methods to best analyze varying sets of data.

### Course learning outcomes

By the end of this course, students should successfully be able to:

1. Be able to select the appropriate graph for a set of data from summary descriptive statistics and/or textual description, and accurately interpret such graphs (APA 1.1c, 2.2e, 4.1f)
2. Compute and correctly interpret descriptive statistics (APA 2.2a, 2.2e, 4.1f)
3. Demonstrate an understanding of the process of null-hypothesis significance testing by using hypothesis testing steps to compute and correctly interpret z-tests, one sample t-tests, independent means t-tests, and related samples t-tests (APA 1.1c, 2.1a, 2.3a-c, 2.4f, 5.1a)

4. Identify, calculate, and interpret appropriate measures of effect size and confidence intervals (APA 2.2e, 2.3c, 2.4f, 4.1f)
5. Compute and correctly interpret bivariate correlation and simple linear regression, and interpret coefficients from multiple regression analyses (APA 2.1e, 2.2e)
6. Correctly interpret computer output from a statistical program (e.g., JASP, Jamovi, SPSS) for t-test, correlation, and regression analyses (APA 2.2e, 4.1f)
7. Correctly choose which statistical test to use based on data characteristics, research design, and number of variables to be analyzed (APA 2.4d, 2.4e)
8. Be able to read, understand and evaluate the statistics as presented in research articles that used t-tests, correlation, and regression (APA 2.2a, 4.1f, 5.1d) Be able to write effectively about cognitive neuroscience and relate what we learned in class to everyday life

## HOW THIS COURSE WORKS

### Mode of delivery:

- Varied. Some instructors will hold synchronous sessions within the time/day pattern assigned to this course by the registrar and will clearly indicate this to their students through Carmen, their finalized syllabus, and emails. Other instructors will be doing their courses entirely asynchronously and this will similarly be communicated clearly to students.
- 100% online delivery.
- There are many opportunities for synchronous and asynchronous interaction with instructors and each other.
- All synchronous sessions will be held within the original time/day pattern of this course (times vary for each section), though we will not use all of those days, nor all of the time each time we meet.
- All synchronous work can be made up in an asynchronous fashion, if you are unable to attend.

**Pace of online activities:** This course is divided into **weekly modules**. Modules open on Sundays at 8am. Each module consists of approximately one chapter, including an overview for the week, assigned readings from the book, Learning Curve practice questions, learning objectives and outline slides, multiple short lecture videos, how-to whiteboard videos, practice questions and worksheets, and a homework assignment, and a discussion board activity. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame

**Credit hours and work expectations:** This is a **3-credit-hour course**. According to [Ohio State policy](#), students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) **to receive a grade of (C) average**.

**Attendance and participation requirements:** Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Participating in online activities for attendance: ONE TO TWO DEADLINES PER WEEK OVER MULTIPLE GRADING CATEGORIES**  
You are expected to log in to the course in Carmen multiple times each week. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Office hours and live sessions: AS SCHEDULED**  
Several live, scheduled events for the course, including office hours, are optional. There may be some required online events. However, alternative accommodations will be considered on a case-by-case basis. There are many opportunities for synchronous and asynchronous interaction with instructional staff and each other.

## COURSE MATERIALS AND TECHNOLOGIES

### Textbooks

#### REQUIRED

**Nolan, S.A. & Heinzen, T.E. (2017). *Statistics for the Behavioral Sciences* (4th ed.). New York, NY: Worth Publishers. You can access the course materials through the MacMillan Higher Education tab in Canvas. Click on "Launchpad" to navigate to the required readings and Learning Curve activities.**

The textbook for this course is being provided via CarmenBooks. Through CarmenBooks, students obtain publisher materials electronically through CarmenCanvas, saving them up to 80% per title. The fee for this material is included as part of tuition and is listed as CarmenBooks fee on your Statement of Account. In addition to cost-savings, materials provided through CarmenBooks are available immediately on or before the first day of class. There is no need to wait for financial aid or scholarship money to purchase your textbook. Unless you choose to opt-out of the program, you do NOT need to purchase any materials for this course at the bookstore. For more information on the program or information on how to opt out, please visit the CarmenBooks website

## Course technology

### TECHNOLOGY SUPPORT

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at [ocio.osu.edu/help/hours](https://ocio.osu.edu/help/hours), and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** [ocio.osu.edu/help](https://ocio.osu.edu/help)
- **Phone:** 614-688-4357(HELP)
- **Email:** [servicedesk@osu.edu](mailto:servicedesk@osu.edu)
- **TDD:** 614-688-8743

### TECHNOLOGY SKILLS NEEDED FOR THIS COURSE

- Basic computer and web-browsing skills
- Navigating Carmen ([go.osu.edu/canvasstudent](https://go.osu.edu/canvasstudent))
- CarmenZoom virtual meetings ([go.osu.edu/zoom-meetings](https://go.osu.edu/zoom-meetings))
- Recording a slide presentation with audio narration ([go.osu.edu/video-assignment-guide](https://go.osu.edu/video-assignment-guide))
- Recording, editing, and uploading video ([go.osu.edu/video-assignment-guide](https://go.osu.edu/video-assignment-guide))

### REQUIRED EQUIPMENT

- Computer: current Mac (MacOs) or PC (Windows 10) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

### REQUIRED SOFTWARE

- Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Full instructions for downloading and installation can be found at [go.osu.edu/office365help](https://go.osu.edu/office365help).
- **Tophat:** All Ohio State students have free access to Tophat, a classroom response system that can be used from all types of mobile phones, computers, and tablets. Click [here](#) for help getting started with Tophat.
- Macmillan Learning Tools – LaunchPad – this is an ebook and set of statistical exercises to enrich your learning in the course
  - There is a navigation tab in Carmen to the Macmillan site and support
  - Click [here](#) for Macmillan learning support
  - Click [here](#) for Macmillan’s privacy policy

### CARMEN ACCESS

You will need to use BuckeyePass ([buckeyepass.osu.edu](https://buckeyepass.osu.edu)) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions ([go.osu.edu/add-device](http://go.osu.edu/add-device)).
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application ([go.osu.edu/install-duo](http://go.osu.edu/install-duo)) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

## GRADING AND FACULTY RESPONSE

### How your grade is calculated (may vary by instructor)

ASSIGNMENT CATEGORY	POINTS
Learning Curve	28
Discussion Boards	48
Homework	165
Checkpoints	6
Exams	158
<b><u>Total</u></b>	<b>405</b>

See course schedule below for due dates.

### Descriptions of major course assignments (may vary by instructor)

#### **Learning Curve (LC): (28 points)**

To help you master the chapter material, each chapter will include a Learning Curve activity worth 2 points which consists of questions from each topic covered in the chapter. You complete the activity by reaching a designated target score. Harder questions are worth more



points than easier questions. You earn fewer points on a given question when you take hints or make incorrect guesses before answering the question correctly.

### **Discussion Boards: (48 points)**

In lieu of in-person discussions, we will have 9 discussion boards for peer interactions. Students will be placed in 6-8 person groups on Canvas and will post comments and respond to classmates within that group. Specific instructions will be provided for each discussion board.

NOTE: Your discussion submissions should be your own original work.

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful

- Writing style: While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation.
- Tone and civility: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online

### **Homework: (165 points)**

Homework assignments will be completed on Canvas. The homework quizzes will each cover 1 chapter (aside from the first assignment). They are open note/book and untimed; each homework is open for approximately 5-6 days . There will be 13 homework assignments, but only 11 will count toward your final grade. Your two lowest homework scores are dropped.

- The homework assignments will vary in the type of questions (ex: multiple choice, true/false, computation, using statistical software, short answer), and number of questions, but each of the 11 assignments will be worth 15 points toward your final grade. Do not ignore these assignments, as they are critical to your success in class! (continued)
- The HW quizzes are not timed, so you should look at the questions early in the week (Canvas will automatically save your answers). The homework topics will be the same for each student, however question numbers, wording, and exact questions will differ between students.
- Homework will open at 8am every Sunday and must be submitted via Carmen by 11:59pm on the due date.
- **ACADEMIC INTEGRITY AND COLLABORATION** Your homework submissions should be your own original work. You may not copy work from an online site or peer.

### **Checkpoints (6)**

A checkpoint response assignment follows Exams 1, 2, and 3. This is your chance to reflect on how you prepared for the exam, the effectiveness of your methods, and ways you can improve.

### **Exams: (158 points)**

There will be 4 cumulative exams over the semester. Each exam will focus on a conceptual assessment (no calculations) of the new weekly material and include some from previously tested chapters; the assessments will increase in point value. The assessment questions will be primarily multiple choice, with 2-5 short answers questions. Assessments will be open book/note, but WILL be timed. The time for the assessment quiz will increase slightly, as the number of questions from past material increases. You must complete the assessments yourself, without any communication from others, or copying answers from another source.

You may use the book or your notes as needed during the assessments.

Exam 1: 32 points

Exam 2: 37 points

Exam 3: 42 points

Final Exam: 47 points

**Collaboration and informal peer-review:** The course includes many opportunities for collaboration with your classmates. While study groups are encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you are unsure about a particular situation, please feel free to ask ahead of time.

### **Late assignments**

- Late submissions may not be accepted by some instructors. Other instructors may apply grade penalties for late assignments.
- Due dates and times will be explicitly given in Carmen.

### **Grading scale**

93–100: A

90–92.9: A-

87–89.9: B+

83–86.9: B

80–82.9: B-

77–79.9: C+

73–76.9: C

70–72.9: C-

67–69.9: D+

60 –66.9: D  
Below 60: E

## Instructor feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**. However, this time may take longer for larger classes.
- **Email:** I will reply to emails within **48 hours on weekdays when class is in session at the university**.
- **Discussion board:** I will check and reply to messages in the discussion boards every **48 hours on school days (M-F)**.

## OTHER COURSE POLICIES

### Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class activities/discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. Please do not engage other students with negative feedback about them as a person and remember to always rely on the data and to focus on the argument being made, not the person making it. Remember to adhere to the OSU Student Code of Conduct at all times - <https://studentconduct.osu.edu/>
- **Citing your sources:** For your contributions in this course, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.
- **What is said in class stays in class:** Please do not share any course materials or student contributions outside of this class without clear written permission from the student involved AND the instructor.

## Zoom/Videoconferencing Guidelines

Some of our interactions in this class will occur through Zoom videoconferencing. Because this mode of discussion has benefits and challenges that differ from in-person class sessions, I want to share my expectations for how we will meet and communicate:

- **Technical Issues:** If you encounter a technical issue with Zoom during a session, first make sure you are using the latest version of Zoom. Next, contact the IT Service Desk at <http://go.osu.edu/it> or 614-688-4357(HELP). If issues continue, contact me after the session to learn how to make up for the missed content either via a recording or other means. I will not be able to address technical issues during a live session.
- **Preparation:** Come to the session having completed any readings or pre-work and be ready to have open, civil, and supportive discussions in video and chat spaces. I ask that you update your Zoom profile with your preferred name and add a picture with your face.
- **Participation:** At the start of our sessions, I'll share specific expectations for how to use the chat, how to interact, and how to raise questions or concerns as we go. If you are unsure about expectations or are unsure about raising a question, please follow up with me afterward to make sure your questions are answered. Plan to be present during the entire class session as much as you are able. For some activities, I may ask you to share your faces on camera so that we can see each other and connect. Please feel encouraged to use a non-distracting virtual background. Many students and instructors prefer not to share their remote spaces for a variety of reasons. Mute your microphone when others are talking to minimize background noise in the meeting.
- **Recordings:** I will be recording our meetings for the benefit of students who may need to be absent. These links will only be shared with students in our class. Please do not share any course materials or student contributions outside of this class without clear written permission from the student(s) involved **AND** the instructor.

## Academic integrity policy

See **Descriptions of major course assignments**, above, for my specific guidelines about collaboration and academic integrity in the context of this online class.

### OHIO STATE'S ACADEMIC INTEGRITY POLICY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's *Code of Student Conduct* ([studentconduct.osu.edu](http://studentconduct.osu.edu)), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in

the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

**If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct.** If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

**It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.**

Other sources of information on academic misconduct (integrity) to which you can refer include:

- Committee on Academic Misconduct web page ([go.osu.edu/coam](http://go.osu.edu/coam))
- Ten Suggestions for Preserving Academic Integrity ([go.osu.edu/ten-suggestions](http://go.osu.edu/ten-suggestions))
- Eight Cardinal Rules of Academic Integrity ([go.osu.edu/cardinal-rules](http://go.osu.edu/cardinal-rules))

## Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are **only** for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

## Statement on Title IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at [titleix.osu.edu](https://titleix.osu.edu) or by contacting the Ohio State Title IX Coordinator at [titleix@osu.edu](mailto:titleix@osu.edu). Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit [equity.osu.edu](https://equity.osu.edu) or email [equity@osu.edu](mailto:equity@osu.edu).

## Commitment to a diverse and inclusive learning environment

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

## Your mental health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at [go.osu.edu/ccsondemand](https://go.osu.edu/ccsondemand). You can reach an on-call counselor when CCS is closed at 614-292-5766, and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at 1-800-273-TALK or at [suicidepreventionlifeline.org](https://suicidepreventionlifeline.org). The Ohio State Wellness app is also a great resource available at [go.osu.edu/wellnessapp](https://go.osu.edu/wellnessapp).

## Health and Safety requirements

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>), which includes *following university mask policies* and maintaining a safe physical distance at all times. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

## Dennis Learning Center

The Dennis Learning Center (<https://dennislearningcenter.osu.edu/>), located within the Younkin success center, has many online and in-person resources available for improving study skills or dealing with test anxiety.

## Student Advocacy

The Student Advocacy Center is an office on campus that works with students who have been significantly ill or experienced other traumatic personal issues to minimize the impact these circumstances may have on their academics. They can provide you with resources to cope with your situation and they can also contact instructors to provide documentation on your behalf. Phone: 614-292-1111, web address: <http://advocacy.osu.edu/>

## Advising

This link has an overview and contact information for the academic services offered on the OSU Columbus campus: <https://advising.osu.edu/>

## Student Services

Manage many of the electronic services on campus: <https://contactbuckeyelink.osu.edu/>

# ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

## Requesting accommodations

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers

based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services.

After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue.

### **SLDS COVID-19 Addition**

In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue.

### **Accessibility of course technology & materials**

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies or course materials, please request accommodations with me.

- Canvas accessibility ([go.osu.edu/canvas-accessibility](http://go.osu.edu/canvas-accessibility))
- CarmenZoom accessibility ([go.osu.edu/zoom-accessibility](http://go.osu.edu/zoom-accessibility))
- Macmillan's accessibility statement can be found by clicking [here](#)



# SAMPLE COURSE SCHEDULE

(Course schedules will vary by instructor; see Carmen for a full schedule of topics and due dates.)

**Course Schedule:** \*Subject to change — any changes posted on Canvas. **All due at 11:59pm.**

Date	Assignments Due	Units of Instruction
Wk 1: T, 1/12 W, 1/13 F, 1/15	<b>Intro Discussion</b> <b>Ch 1, Ch 2 Learning Curve (LC)</b> <b>Ch 1/2 HW</b>	Introduction & Overview Ch 1 - Review, Ch 2 - Frequency Distributions Ch 1/2 PRACTICE
Wk 2: M, 1/18 W, 1/20 F, 1/22	<b>—NO CLASSES—</b> <b>Ch 3 LC; Ch 3 Discussion</b> <b>Ch 3 HW</b>	<b>—NO CLASSES—</b> Ch 3 - Visual Displays of Data Ch 3 PRACTICE
Wk 3: M, 1/25 W, 1/27 F, 1/29	<b>Ch 4 LC</b> <b>Ch 4 Discussion</b> <b>Ch 4 HW</b>	Ch 4 - Central Tendency & Variability Ch 4 - Central Tendency & Variability Ch 4 PRACTICE
Wk 4: M, 2/1 W, 2/3 F, 2/5	<b>Ch 5 LC</b> <b>Ch 5 HW</b>	Ch 5 - Sampling & Probability Ch 5 - Sampling & Probability Ch 5 PRACTICE
Wk 5: M, 2/8 W, 2/10 F, 2/12	<b>&gt;&gt;Exam 1&lt;&lt;</b> <b>Checkpt 1; Ch 6 LC</b> <b>Ch 6 HW</b>	<b>Exam 1 (Ch 1-5)</b> Ch 6 - Normal Curve, Standardization, z Scores Ch 6 PRACTICE
Wk 6: M, 2/15 W, 2/17 F, 2/19	<b>Ch 7 LC</b> <b>Ch 7 Discussion</b> <b>Ch 7 HW</b>	Ch 7 - Hypothesis Testing with z Tests Ch 7 - Hypothesis Testing with z Tests Ch 7 PRACTICE
Wk 7: M, 2/22 W, 2/24 F, 2/26	<b>Ch 8 LC;</b> <b>—NO CLASSES—</b> <b>Ch 8 Discussion</b>	Ch 8 - Confidence Intervals, Effect Size, Power <b>—NO CLASSES—</b> Ch 8 - Confidence Intervals, Effect Size, Power
Wk 8: M, 3/1 W, 3/3 F, 3/5	<b>Ch 8 HW</b> <b>&gt;&gt;Exam 2&lt;&lt;</b>	Ch 8 PRACTICE Review <b>Exam 2 (Ch 1-8)</b>
Wk 9: M, 3/8 W, 3/10 F, 3/12	<b>Checkpt 2; Ch 9 LC</b> <b>Ch 9 HW</b>	Ch 9 - Single-Sample t-Test Ch 9 - Single-Sample t-Test Ch 9 PRACTICE
Wk 10: M, 3/15 W, 3/17 F, 3/19	<b>Ch 10 LC</b> <b>Ch 10 Discussion</b> <b>Ch 10 HW</b>	Ch 10 - Paired-Sample t-Test Ch 10 - Paired-Sample t-Test Ch 10 PRACTICE
Wk 11: M, 3/22 W, 3/24 F, 3/26	<b>Ch 11 LC</b> <b>Ch 11 Discussion</b> <b>Ch 11 HW</b>	Ch 11 - Independent-Samples t-Test Ch 11 - Independent-Samples t-Test Ch 11 PRACTICE
Wk 12: M, 3/29 W, 3/31 F, 4/2	<b>—NO CLASSES—</b> <b>&gt;&gt;Exam 3&lt;&lt;</b>	Review <b>—NO CLASSES—</b> <b>Exam 3 (Ch 1-11)</b>
Wk 13: M, 4/5 W, 4/7 F, 4/9	<b>Checkpt 3; Ch 15 LC</b> <b>Ch 15 Discussion</b> <b>Ch 15 HW</b>	Ch 15 - Correlation Ch 15 - Correlation Ch 15 PRACTICE
Wk 14: M, 4/12 W, 4/14 F, 4/16	<b>Ch 16 LC</b> <b>Ch 16 Discussion</b> <b>Ch 16 HW</b>	Ch 16 - Regression Ch 16 - Regression Ch 16 PRACTICE
Wk 15: M, 4/19 W, 4/21 F, 4/23	<b>Ch 18 LC</b> <b>Ch 18 HW</b>	Ch 18 - Choosing a Statistical Test Ch 18 - PRACTICE Review
<b>TUESDAY 4/27</b>	<b>Final Exam</b>	<b>Final Exam (Ch 1-11, 15-16, 18)</b>



# PSYCH 2220—Data Analysis in Psychology (SECTION 22660)



## Instructor Information:

Name: Brian Siefke  
Office Location: Lazenby 221C  
Office Hours: by appointment (e-mail)  
Instructor Email: [Siefke.4@osu.edu](mailto:Siefke.4@osu.edu)  
(\*put "PSYCH 2220" in subject line!)

## Course Information:

Term: Autumn 2019  
Time: Mon/Wed/Fri : 12:40pm-1:35pm  
Class Location: Psychology Bldg. 006  
Section number: 22660  
Course website: <https://carmen.osu.edu>

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## WELCOME!

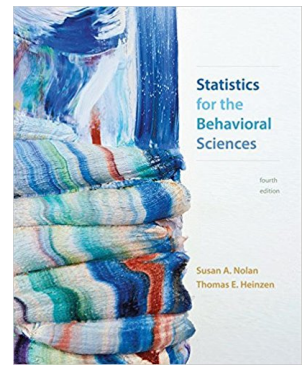
### **REQUIRED TEXT:**

PSYCH 2220 has one required textbook. All of the class readings will come from this text. All assigned readings **MUST BE COMPLETED BEFORE THE CLASS DATE.**

***Nolan, S. A., Heinzen, T.E. (2017). Statistics for the Behavioral Sciences (4<sup>nd</sup> ed.). New York: W. W. Worth Publishers***

Students are able to buy the book at the University Bookstores. However, if students can find the *4<sup>nd</sup> Edition* cheaper from another source, they are free to do so. Here is the Barnes & Noble link for our class:

<https://tinyurl.com/PSYCH-2220-22660>



### **CARMEN COURSE WEBSITE:**

All grades and assignments will be administered through the course website: <https://carmen.osu.edu>. Additional class handouts and other materials will be made available as well. Grades will be posted to Carmen shortly after each due date.

### **SOFTWARE:**

Although the use of laptops and computers during lecture is STRONGLY discouraged, we will be using computer software somewhat routinely. In addition to using calculators in class and on Exams, I will provide specific instruction on the use of **SPSS** software for data analysis to be done on homework assignments. Students are required to access SPSS software either directly on a University computer, or download and install SPSS on their own computers. SPSS is free to students and available through the office of the OCIO:

(<https://ocio.osu.edu/software/directory/slwin#spss>)

### **PREREQUISITES**

• PSYCH 1100 or PSYCH 1100H, and STAT 1450, MATH 1130, MATH 1148, MATH 1149, 1150, 1151, or 152, or equivalent, or Math Placement Level M or higher; or permission of instructor. Not open to students with credit for 220, 220H, 320, or 320H. This course is available for EM credit.

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### **COURSE DESCRIPTION:**

PSYCH 2220 begins with a discussion of the statistical analysis of psychological data - random samples, the graphical and numerical techniques of descriptive statistics, correlation, regression, probability, sampling distributions, and hypothesis testing. The primary goal is to provide students with the knowledge, tools, and practice needed to better understand, interpret, and compute common statistics used in research. Lectures will emphasize critical thinking regarding published data analysis & interpretation, as well as practice in discussing one's own analyses.

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## APA COURSE LEARNING OBJECTIVES:

- 1) Be able to create an accurate graph of a set of data from a set of summary descriptive statistics and/or textual description, and accurately interpret such graphs
- 2) Compute and correctly interpret descriptive statistics
- 3) Demonstrate an understanding of the process of null-hypothesis significance testing by using hypothesis testing steps to compute and correctly interpret z-tests, one sample t-tests, independent means t-tests, and related samples t-tests
- 4) Identify, calculate, and interpret appropriate measures of effect size and confidence intervals
- 5) Compute and correctly interpret bivariate correlation and simple linear regression, and interpret coefficients from multiple regression analyses
- 6) Correctly interpret computer output from a statistical program (e.g., SPSS, SAS) for t-test, correlation, and regression analyses
- 7) Correctly choose which statistical test to use based on data characteristics, research design, and number of variables to be analyzed
- 8) Be able to read, understand and evaluate the statistics as presented in research articles that used t-tests, correlation, and regression

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## PSYCHOLOGY 2220 LEARNING LAB, Lazenby Hall 015

<https://psychologymajor.osu.edu/resources/psychology-2220-learning-lab>

The Learning Lab is open Mon-Fri and is a drop-in tutoring center. Any 2220 student is permitted to come to the lab with questions about class content. Peer Experts will work one-on-one with students or in small groups. The Learning Lab is equipped with computers, textbooks, calculators, and loads of practice problems. The Peer Experts are permitted to explain concepts and give example problems, but they will not help with specific assigned homework problems. They will also hold review sessions before each exam, usually in the evenings. They cover concepts and give the attendees a worksheet with practice problems.

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## INSTRUCTOR APPOINTMENTS AND E-MAIL CONTACT POLICY:

To accommodate my students, I do not hold “standard” office hours. Instead, I offer flexibly scheduled individual appointments during which we can discuss content, assignments, or grades. When sending an appointment request, please indicate the reason you wish to meet and a few times you are available. Also, I’m happy to discuss questions via e-mail, although I cannot e-mail your grades. I care very much about my students and I take your time and communication very seriously, but I can’t always reply immediately due to other obligations. If you put “**PSYCH 2220**” in the subject line, you can generally expect a response within 48 hours. Please keep this in mind – don’t wait to study for an exam until the day last day! ***I am here to help!***

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## CLASSROOM POLICIES:

**Regarding cellphones/laptops/calculators:** Current research indicates that using these devices does not add to a student’s learning and may actually even hurt the process. Students will not typically need these devices during lecture anyhow, as all class materials are shared on the class website. *I strongly recommend taking notes with pen/pencil and paper,* as this form of interaction with material actually promotes increased learning and cognitive retention.

**Communicating during class with outside persons via phone or e-mail or text is distracting, rude to your peers, and insulting to me personally. I reserve the right to ask students to leave the classroom or turn off or put away any devices that are distracting your attention or my attention, or the attention of other students.**

However, this class includes instruction on how to use specific software. Further, students will be allowed and expected to use standard calculators at select times, including on exams. On certain specified days, students may wish to follow my instructions for software in class, but are fully expected to implement and replicate all class methods on their own time. *Use technology with discretion!*

**Attendance:** I do not police attendance, and do not require excuses for missing class! You are responsible for your own learning. If you must miss a class, you will still be responsible for the information covered that day. You can get most of the material from the class website, or you can obtain lecture notes from a classmate. You directly benefit from attendance because during lecture I will interact directly with the ability level of the present students on skills and methods directly relevant to earning your grade.

**Leaving classroom:** If necessary, you may always exit the classroom for any reason, but I ask that you do so with respect to your classmates and to me, and with as little disruption as possible.

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## **COURSE EXPECTATIONS:**

### **What you can expect from me:**

- Genuine Interest in teaching, in helping you learn and engage the material, and in your success both inside and outside the classroom.
- Availability to address your questions and provide feedback as quickly and as thoroughly as possible. I will do my best to respond to your e-mails within 48 hours and encourage you to meet with me by appointment to address any questions or concerns you may have.
- Proper Preparation for class including lectures, exam reviews, relevant demonstrations, activities, and media to support your learning. *I will not waste your valuable time!*
- Respect for you, your questions, opinions, ideas, and goals.

### **What I expect from you:**

- Come prepared: First, this means come to class and come on time. *Read the assigned chapters before class.* It is also important to check your OSU e-mail and Carmen regularly for important updates.
- Engage and ask questions: Be ready to participate and engage by asking questions, making comments, and thinking critically. This will make class a lot more fun and interesting for us all. If you do not understand something, odds are that several other people in the class are also confused. DON'T BE SHY. I want to help you understand the material and I love questions! Shy anyway? E-MAIL ME! I work for you!
- Respect: My classroom is a safe environment for everyone. While I welcome questions, thoughts, and ideas, I will not tolerate any behavior that is disruptive or displays a lack of respect for your fellow students or me. Insults, hate speech, ridicule, or any form of disrespect aimed at anyone in the classroom will not be tolerated. Please follow the OSU Code of Student Conduct. I most certainly will.

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## **STUDENTS WITH DISABILITIES:**

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue. YOU DO NOT NEED TO IDENTIFY YOUR DISABILITY TO ME! The SLDS office will help!

## **MENTAL HEALTH RESOURCES:**

If you need help for yourself or someone you care about, the following resources are available:

- The Ohio State University Counseling and Consultation Services: (614) 292-5766
- The Ohio State University Psychological Services Center: (614) 292-2059
- The Ohio State University Hospital Emergency Room: (614) 293-8333
- Suicide Hotlines: 1 (800) SUICIDE, 1 (800) 273-TALK

## **Sexual misconduct/relationship violence:**

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at [titleix@osu.edu](mailto:titleix@osu.edu)

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## GRADES:

This class includes the opportunity to earn **250 total points**. Final course grades will be based on the percentage of points earned out of the 250 total available points (***specifically rounded to the nearest 1/10 of a point***). The following OSU standard scale will be used to assign final grades:

A	93% +	C	73% - 76.9%
A-	90% - 92.9%	C-	70% - 72.9%
B+	87% - 89.9%	D+	67% - 69.9%
B	83% - 86.9%	D	60% - 66.9%
B-	80% - 82.9%	E	Below 60%
C+	77% - 79.9%		

The 250 points will be earned by completing the following:

**EXAMS (160 POINTS):** There will be 3 Exams and a Final Exam each worth 40 points. \*Exams are likely to contain Extra-Credit questions. The first 3 Exams will be given on the assigned days in class (see Class Schedule) and the Final Exam will be held at the appointed time during Finals Week. For Exams, students will be allowed the use of a standard calculator, *but not cellphones or laptops*.

**\*\* There will be NO early Exams or alternate Exams! Please plan your semester accordingly!**

**HOMEWORK ASSIGNMENTS (60 POINTS):** There will be 6 homework assignments distributed throughout the semester Each will be worth 10 points. (See the Class Schedule for due dates.) These assignments will be administered through Carmen Canvas and may require use of specific software. I will provide more specific details and instructions for each Assignment later in the semester and on Carmen.

**NOTE:** All deadlines will be at precisely 12:00pm (NOON!) on the respective date. *Late assignments WILL NOT be accepted for any reason whatsoever, barring a prior arrangement with Disability Services.* Please note the due dates and times on the calendar page.

**WEEKLY QUIZZES (30 POINTS):** Weekly quizzes will be administered via Carmen. Typically, these will be posted and on Carmen every Friday afternoon after class and will be due by the following Tuesday at 12:00pm (noon). NOTE: answers will be released after grading, therefore *absent or late quiz submissions WILL NOT be accepted*.

**\*\*LEARNING LAB EXTRA CREDIT:** Please refer to the Learning Lab Extra Credit form (on Carmen) for our section.

## ACADEMIC INTEGRITY:

Students are expected to uphold a high standard of academic integrity. **CHEATING AND PLAGIARISM WILL NOT BE TOLERATED AND WILL RESULT IN FAILURE OF THE COURSE AND WILL BE REPORTED TO THE DEAN. IGNORANCE IS NOT AN EXCUSE!**

Failure to adhere to these guidelines may result in a failing grade and/or suspension. Please see the Code of Student Conduct: <http://oaa.ohio-state.edu/coam/home/html>.

"It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487)

## DISCLAIMER:

This syllabus IS A LEGAL CONTRACT and is subject to minor revisions at the discretion of the instructor. Revision announcements will be made in class, and this document will be updated on the course website as needed.

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**CLASS SCHEDULE:**

<b>Dates</b>	<b>Lecture Topics</b>	<b>Reading &amp; Homework</b>
Week 1 8/20 - 8/23	Syllabus and Course Introduction Introduction to Statistics and Research Design	Chapter 1
Week 2 8/26 - 8/30	Frequency Distributions Displaying Data	Chapter 2 Chapter 3
<b>9/2</b>	<b>U.S. Labor Day</b>	
Week 3 9/2 - 9/6	Measures of Central Tendency	Chapter 4
Week 4 9/9 - 9/13	Variability Sampling and Probability Hypothesis testing and Errors	<b>HW1 due 9/9 at 12 Noon</b> Chapter 5
<b>Monday 9/16</b>	<b>EXAM 1 (in regular class)</b>	
Week 5 9/16 - 9/20	The Normal Curve z-scores and the Central Limit Theorem	Chapter 6
Week 6 9/23 - 9/27	Practice with Z-scores and the Normal Distribution Hypothesis testing with z-tests	Chapter 7 <b>HW2 due 9/27 at 12 Noon</b>
Week 7 9/30 - 10/4	Confidence Intervals Effect Size	Chapter 8
Week 8 10/7 - 10/11	Statistical Power Confidence Intervals, Effect Size, and Statistical Power (Practice)	
<b>10/10 &amp; 10/11</b>	<b>Autumn Break! Yay!</b>	
<b>Monday 10/14</b>	<b>EXAM 2 (in regular class)</b>	
Week 9 10/14 - 10/18	The t-distribution Single-Sample t-tests	Chapter 9 <b>HW3 due 10/18 at 12 Noon</b>
Week 10 10/21 - 10/25	Single-Sample t-tests Review Paired-Samples t-tests	Chapter 10
Week 11 10/28 - 11/1	Paired Samples t-tests Practice Independent samples t-tests I	Chapter 11
Week 12 11/4 - 11/8	Independent samples t-tests II Practice with t-tests & Review for Exam 3	<b>HW4 due 11/4 at 12 Noon</b>
<b>Friday 11/8</b>	<b>EXAM 3 (in regular class)</b>	
<b>11/11</b>	<b>Veterans Day</b>	
Week 13 11/11 - 11/15	Correlation I Correlation II	Chapter 15
Week 14 11/18 - 11/22	Practice with Correlation Simple Linear Regression	<b>HW5 due 11/18 at 12 Noon</b> Chapter 16
Week 15 11/25 - 11/29	Multiple Regression and Other Models	
<b>11/27 &amp; 11/28</b>	<b>Thanksgiving Break</b>	
<b>11/29</b>	<b>Indigenous People's Day</b>	
Week 16 12/2 - 12/4	Regression Practice Overview and Review	<b>HW6 due 12/4 at 12 Noon</b>
<b>Thursday 12/12</b>	<b>Final Exam: Thursday 12/12 from 2:00pm - 3:45pm, Location TBA</b>	

## Arts and Sciences Distance Learning Course Component Technical Review Checklist

**Course: PSYCH 2220**

**Instructor: TBD**

**Summary: Data Analysis in Psychology**

Standard - Course Technology	Yes	Yes with Revisions	No	Feedback/ Recomm.
6.1 The tools used in the course support the learning objectives and competencies.	X			<ul style="list-style-type: none"> <li>• Office 365</li> <li>• Carmen</li> </ul>
6.2 Course tools promote learner engagement and active learning.	X			<ul style="list-style-type: none"> <li>• Zoom</li> <li>• Asynchronous or synchronous lab sessions.</li> <li>• Carmen discussion boards.</li> <li>• Tophat</li> <li>• Macmillian Learning Tools</li> </ul>
6.3 Technologies required in the course are readily obtainable.	X			All tech is available for free via OSU site license.
6.4 The course technologies are current.	X			The majority of the tech is web based and updated regularly.
6.5 Links are provided to privacy policies for all external tools required in the course.	X			No 3 <sup>rd</sup> party utilities are used.
Standard - Learner Support				
7.1 The course instructions articulate or link to a clear description of the technical support offered and how to access it.	X			Links to 8HELP are provided.
7.2 Course instructions articulate or link to the institution's accessibility policies and services.	X			a
7.3 Course instructions articulate or link to an explanation of how the institution's academic support services and resources can help learners succeed in the course and how learners can obtain them.	X			b
7.4 Course instructions articulate or link to an explanation of how the institution's student services and resources can help learners succeed and how learners can obtain them.	X			c
Standard – Accessibility and Usability				
8.1 Course navigation facilitates ease of use.	X			Recommend using the Carmen Distance Learning "Master Course" template developed by ASC and available in the Canvas Commons to provide student-users with a consistent user experience in terms of navigation and access to course content.
8.2 Information is provided about the accessibility of all technologies required in the course.	X			No 3 <sup>rd</sup> party tech is used.
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	X			Recommend that resources be developed to address any requests for alternative means of access to course materials.
8.4 The course design facilitates readability	X			Recommend using the Carmen Distance Learning "Master Course" template developed by ASC and available in the Canvas Commons to provide student-users with a consistent user experience

				in terms of navigation and access to course content.
8.5 Course multimedia facilitate ease of use.	X			All assignments and activities that use the Carmen LMS with embedded multimedia facilitates ease of use. All other multimedia resources facilitate ease of use by being available through a standard web browser.

**Reviewer Information**

- Date reviewed: 1/15/21
- Reviewed by: Ian Anderson

**Notes: This one is good to go!**

<sup>a</sup>The following statement about disability services (recommended 16 point font):  
 The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability including mental health, chronic or temporary medical conditions, please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue.

<sup>b</sup>Add to the syllabus this link with an overview and contact information for the student academic services offered on the OSU main campus. <http://advising.osu.edu>

<sup>c</sup>Add to the syllabus this link with an overview and contact information for student services offered on the OSU main campus. <https://contactbuckeyelink.osu.edu/>